



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

4.77

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/757,146	01/14/2004	Dwight D. Smith	18133	3170

7590 04/11/2007
Michael J. Aronoff
Tyco Technology Resources
Suite 140
4550 New Linden Hill Road
Wilmington, DE 19808

EXAMINER

TORRES RUIZ, JOHALI ALEJANDRA

ART UNIT	PAPER NUMBER
2838	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/11/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/757,146

Applicant(s)

SMITH, DWIGHT D.

Examiner

Johali A. Torres Ruiz

Art Unit

2838

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 January 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 4/1/2004 and 5/23/2005.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Objections

1. Claim 1 is objected to because of the following informalities: spelling error on line 5 it reads though when it should read through. Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Taylor et al. (U.S. Patent Number 5,262,710), in view of Slipy et al. (U.S. Patent Number 5,955,700).
2. Claim 1: Taylor teaches a housing (106) having a battery (420) receiving cavity, said cavity being profiled to receive at least a battery therein (Fig. 5); electrodes (224) for contacting contacts on the battery (420) (Col.9, Lines 52-54) for charging the battery (Col.9, lines 27-31); a gripping member (280 and 290) movable between a locked (386 and 392) and unlocked (498 and 504) position, for gripping a battery placed within said cavity (Col.10, lines 27-32). It does not explicitly teach said housing comprising an opening through said housing and into said cavity, nor that the gripping member is movable transversely into and out of said housing opening. Slipy teaches a housing (302) having a battery (112) receiving cavity (128) said housing (302) comprising an opening through said housing (302) and into said cavity (128) (Col.5, Lines 20-24),

Art Unit: 2838

positioning the opening toward the center of the housing would mean positioning it on the battery receiving cavity which is toward the center of said housing (302) (Fig.1).

Slipy teaches a gripping member (106) is movable transversely into and out of said housing opening (Col.5, Lines 17-20). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have had a housing comprising an opening through said housing and into a battery receiving cavity and a gripping member movable transversely into and out of said housing opening in Taylor as taught in Slipy because it is known in the art as an expected successful configuration of gripping member and battery housing.

3. Claim 2: Taylor and Slipy teach the limitations of claim 1 as discussed above.

Slipy teaches a gripping member (208) is moved by a cam assembly (106). It teaches a cam assembly provides for a strong attachment and simple assembly (Col.1, Lines 29-33). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have had a cam assembly move the gripper member in Taylor as taught in Slipy to have obtained the above advantage.

4. Claim 3: Taylor and Slipy teach the limitations of claim 2 as discussed above.

Taylor teaches a gripping member is comprised of a gripper portion (280 and 290) attached to an insert (176) (Col.7, Lines 29-32 and 50-53).

5. Claim 4: Taylor and Slipy teach the limitations of claim 3 as discussed above. It does not explicitly teach a cam assembly comprised of a rotatable cam which operates within a follower groove in an insert. Slipy teaches a cam assembly (106) comprised of a rotatable cam (216) (Col.3, Lines 47-49), which operates within a follower groove

Art Unit: 2838

(space formed by gripper 208 on element 206) in an insert (118) (Col.4, Lines 32-34). It teaches a cam assembly provides for a strong attachment and simple assembly (Col.1, Lines 29-33). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have had a cam assembly comprised of a rotatable cam which operates within a follower groove in an insert in Taylor as taught in Slipy to have obtained the above advantage.

6. Claim 5: Taylor and Slipy teach the limitations of claim 3 as discussed above.

Slipy teaches wherein said gripper member (208) is a rubber-like material (Col.3, Lines 9-11) and is integrally connected to a plastic insert (212 or 214) (Col.2, Lines 56-59 and 63-67). The fact that they are not molded together does not impart distinctive structural characteristics to the final product. It teaches the gripper member and insert are made like this to be formed by a durable material (Col.3, Lines 9-11). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have had a gripper member made of a rubber-like material and integrally connected to a plastic insert in Taylor as taught in Slipy to have obtained the above advantage.

7. Claim 6: Taylor and Slipy teach the limitations of claim 5 as discussed above.

Taylor teaches wherein said gripper member is substantially U-shaped (Fig.4), with leg portions (296 and 302) of the U flanking said insert (176) (Fig.2), and the closed end (124) of the U providing the gripping function (Col.9, lines 43-50).

8. Claim 7: Taylor and Slipy teach the limitations of claim 6 as discussed above.

Taylor teaches wherein the leg portions (296 and 302) of the gripper member are fixed to the housing portion (Col.7, Lines 26-29 and 46-49) and the movement of a spring

Art Unit: 2838

(310) stretches the remainder of the gripper member (280 and 290) (Col.8, Lines 29-39). It does not explicitly teach wherein the movement of a cam stretches the remainder of the gripper member. Slipy teaches a gripping member (208) is moved by a cam assembly (106). It teaches a cam assembly provides for a strong attachment and simple assembly (Col.1, Lines 29-33). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have had a cam assembly instead of a spring stretched the remainder of the gripper member in Taylor as taught in Slipy to have obtained the above advantage.

9. Claim 8: Taylor and Slipy teach the limitations of claim 4 as discussed above. Slipy teaches wherein said rotatable cam (216) and said follower groove (space formed by gripper 208 on element 206) are contoured for a nested position when in the unlocked position (Fig. 4).

10. Claim 9: Taylor and Slipy teach the limitations of claim 4 as discussed above. Slipy teaches said rotatable cam (216) (Col.3, Lines 47-49) and said follower groove (space formed by gripper 208 on element 206) are contoured for a detented position when in the locked position (Fig. 6).

11. Claim 10: Taylor and Slipy teach the limitations of claim 1 as discussed above. Taylor teaches a battery receiving battery profiled to receive a battery alone (Fig.5).

12. Claim 11: Taylor and Slipy teach the limitations of claim 10 as discussed above. Taylor teaches guides (362 and 368) along the insertion axis (Fig.3) of the cavity for holding the battery (420) alone (Col.9, Lines 39-42).

Art Unit: 2838

13. Claim 12: Taylor and Slipy teach the limitations of claim 11 as discussed above. Slipy teaches a battery receiving cavity (128) including guide grooves along the insertion axis of the cavity (Fig.1). It would have been obvious to one of ordinary skill in the

14. Claim 13 is rejected for substantially the same reasons as claims 1 and 10 above.

15. Claim 14: Taylor and Slipy teach the limitations of claim 13 as discussed above. Claim 14 is rejected for substantially the same reasons as claim 3 above.

16. Claim 15: Taylor and Slipy teach the limitations of claim 14 as discussed above. Claim 15 is rejected for substantially the same reasons as claim 4 above.

17. Claim 16: Taylor and Slipy teach the limitations of claim 14 as discussed above. Claim 16 is rejected for substantially the same reasons as claim 5 above.

18. Claim 17: Taylor and Slipy teach the limitations of claim 16 as discussed above. Claim 17 is rejected for substantially the same reasons as claim 6 above.

19. Claim 18: Taylor and Slipy teach the limitations of claim 17 as discussed above. Claim 18 is rejected for substantially the same reasons as claim 7 above.

20. Claim 19: Taylor and Slipy teach the limitations of claim 16 as discussed above. Claim 19 is rejected for substantially the same reasons as claim 8 above.

21. Claim 20: Taylor and Slipy teach the limitations of claim 16 as discussed above. Claim 20 is rejected for substantially the same reasons as claim 9 above.

22. Claim 21: Taylor and Slipy teach the limitations of claim 15 as discussed above. Slipy teaches a cam member (216) is operated by a shaft (204), which is connected to

Art Unit: 2838

said cam member (216) (Col.2, lines 56-59). It does not explicitly teach that it extends through to an exterior of a housing. The rearrangement of parts has been held to support a *prima facie* case of obviousness. In re Japikse, 181 F.2d 1019, 86 USPQ 70 (CCPA 1950) (Claims to a hydraulic power press which read on the prior art except with regard to the position of the starting switch were held unpatentable because shifting the position of the starting switch would not have modified the operation of the device.) Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have had the shaft in Slipy extend through to an exterior of a housing because the position of the shaft would not have modified the operation of the cam. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have had a cam operated by a shaft which is connected to said cam, and extend through to an exterior of a housing in Taylor as taught in Slipy because it is known in the art as an expected successful configuration of cam.

23. Claim 22: Taylor and Slipy teach the limitations of claim 13 as discussed above. Claim 22 is rejected for substantially the same reasons as claim 11 above.

24. Claim 23: Taylor and Slipy teach the limitations of claim 22 as discussed above. Claim 23 is rejected for substantially the same reasons as claim 12 above.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Johali A. Torres Ruiz whose telephone number is (571) 270-1262. The examiner can normally be reached on M- Alternating F 7:30am-5pm EST.

Art Unit: 2838

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Karl Easthom can be reached on (571) 272-1989. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

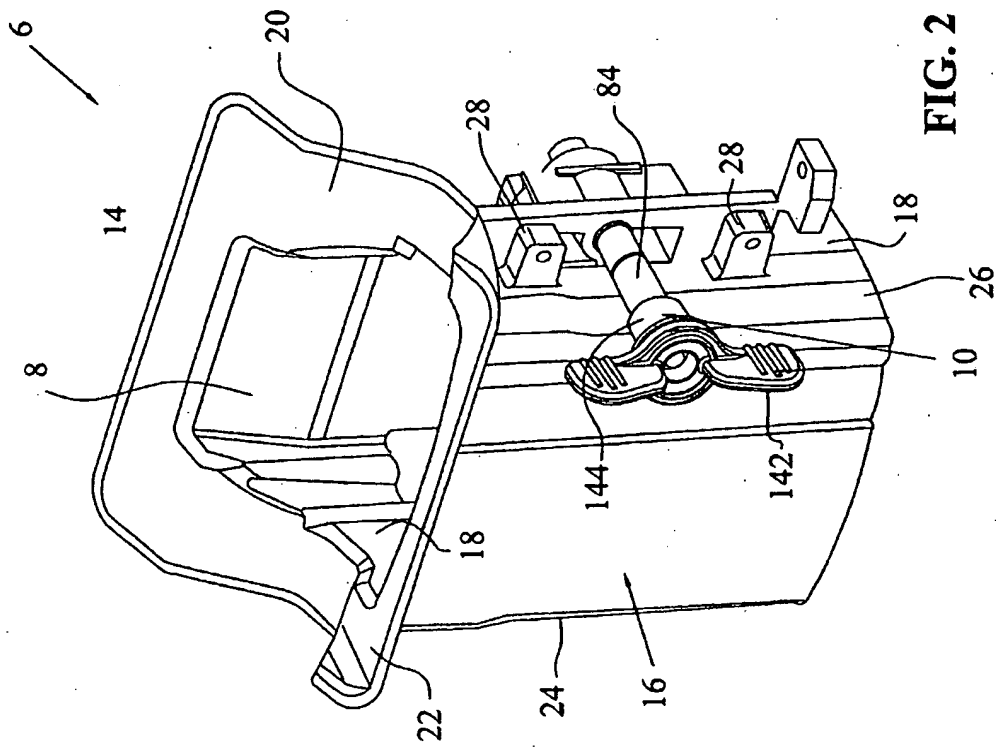


JAT



KARL EASTHOM
SUPERVISORY PATENT EXAMINER





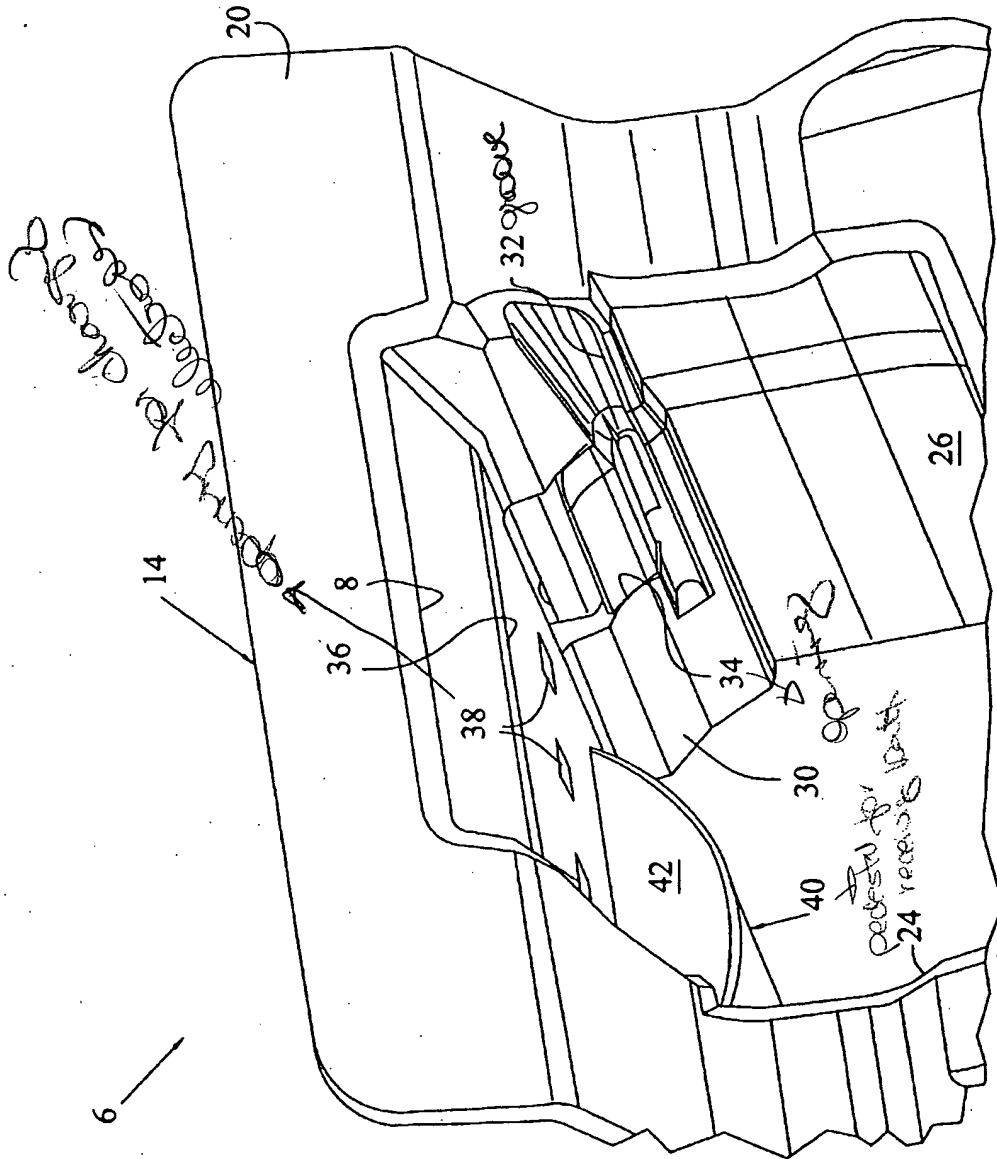


FIG. 3

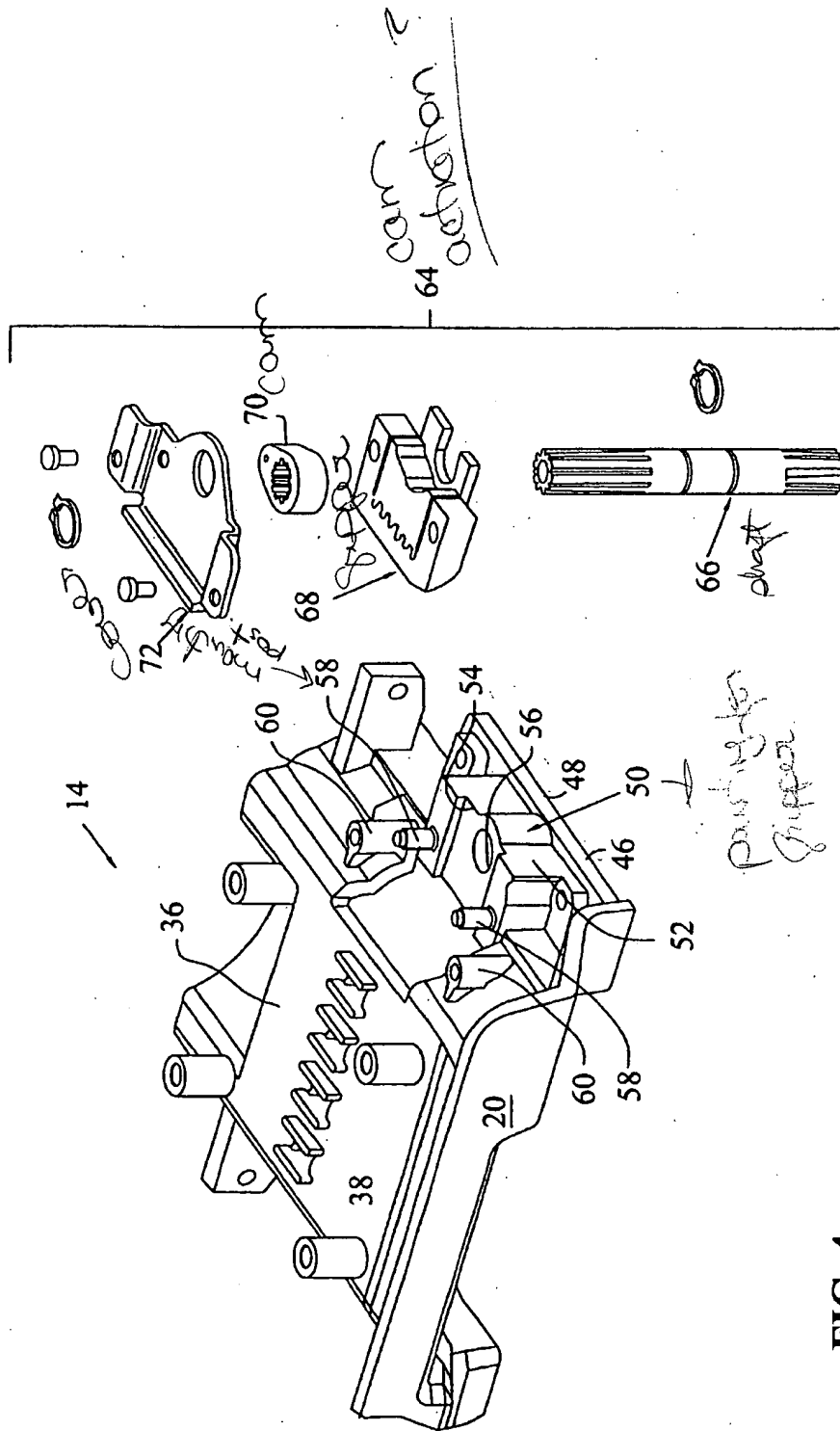
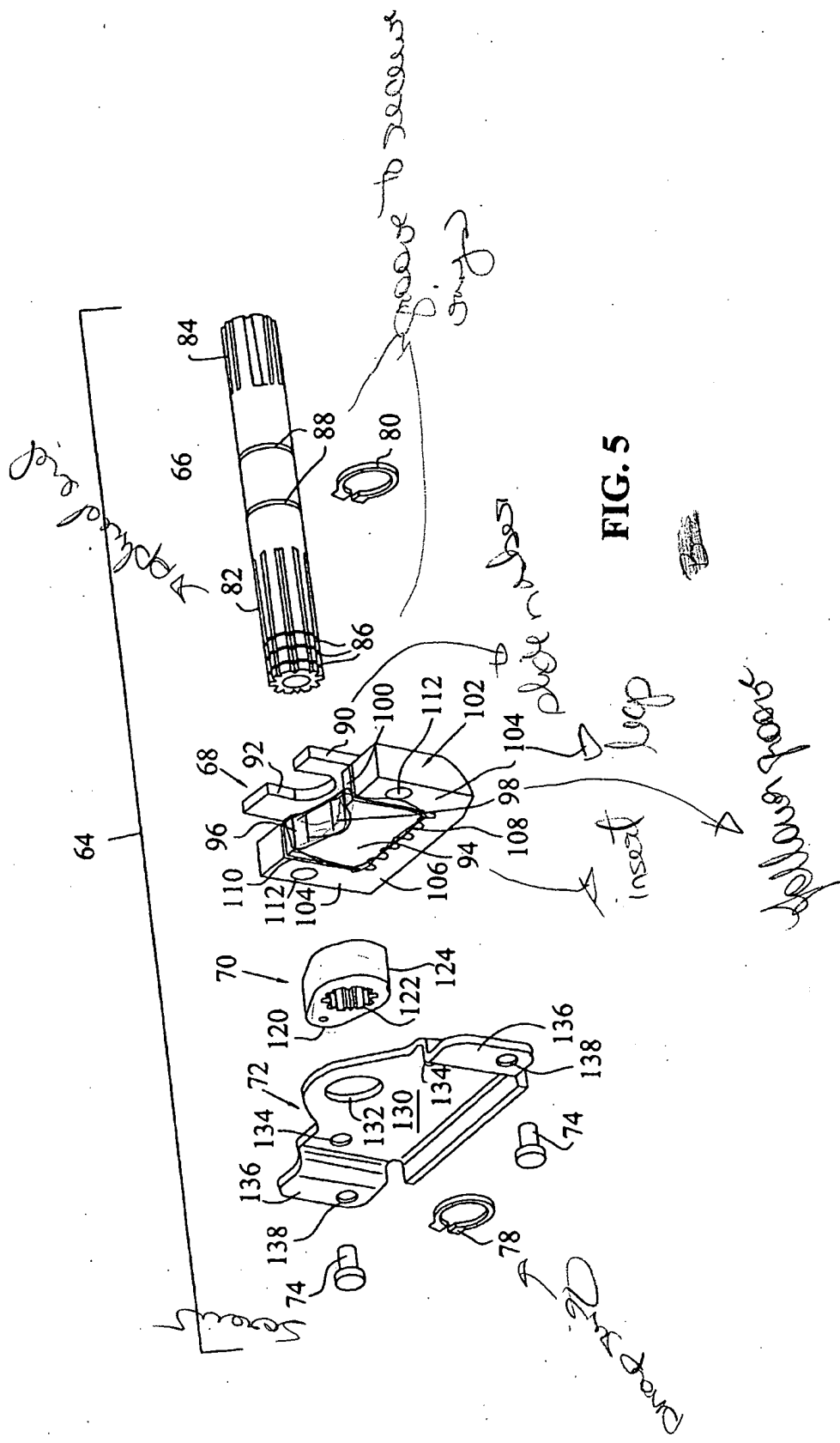


FIG. 4



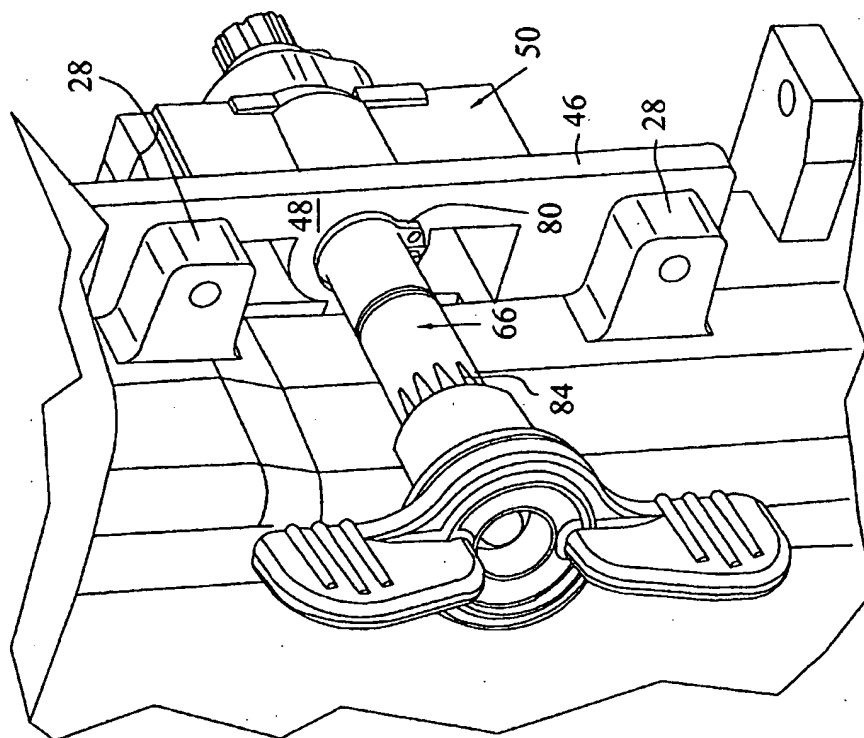


FIG. 6

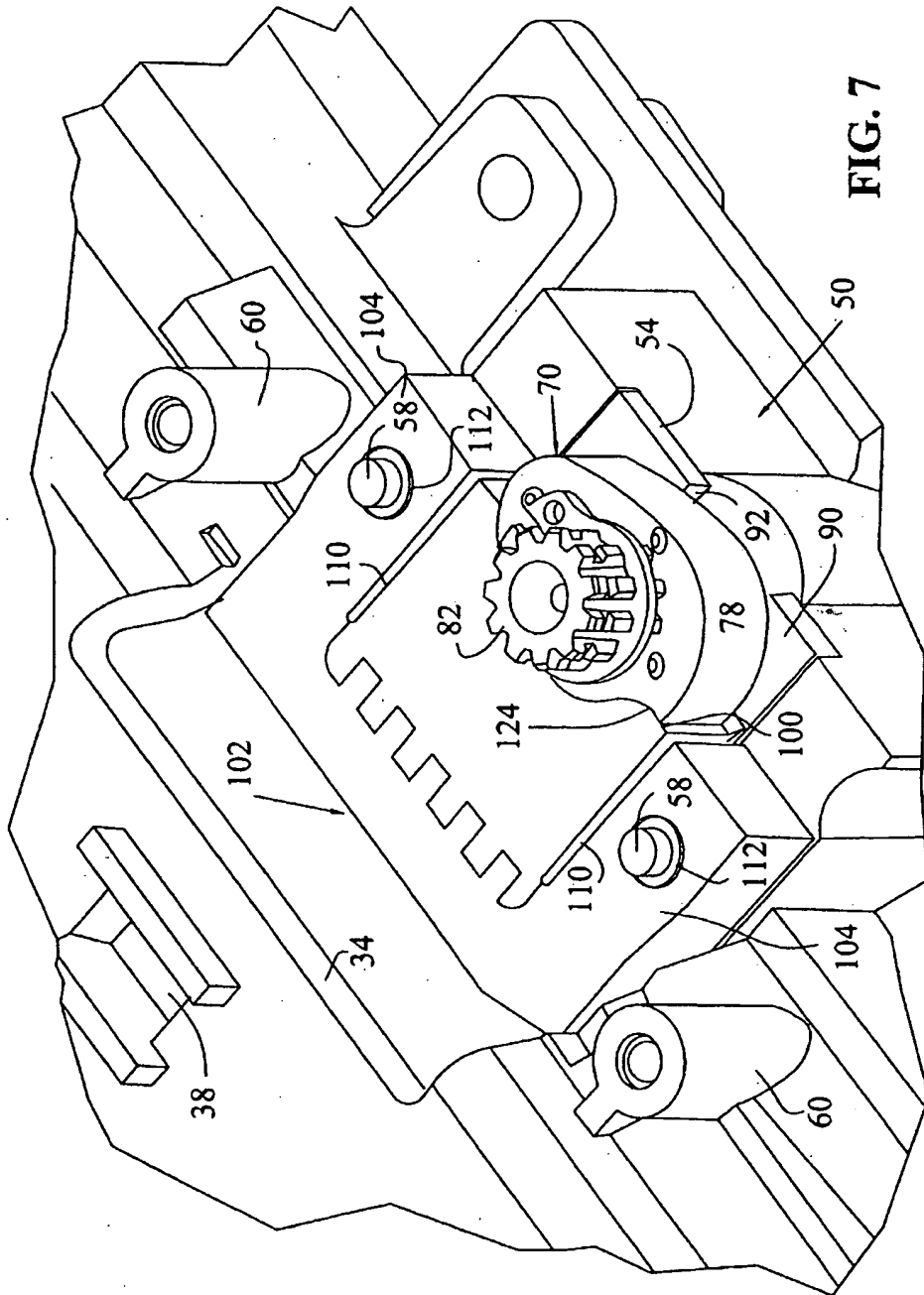


FIG. 7

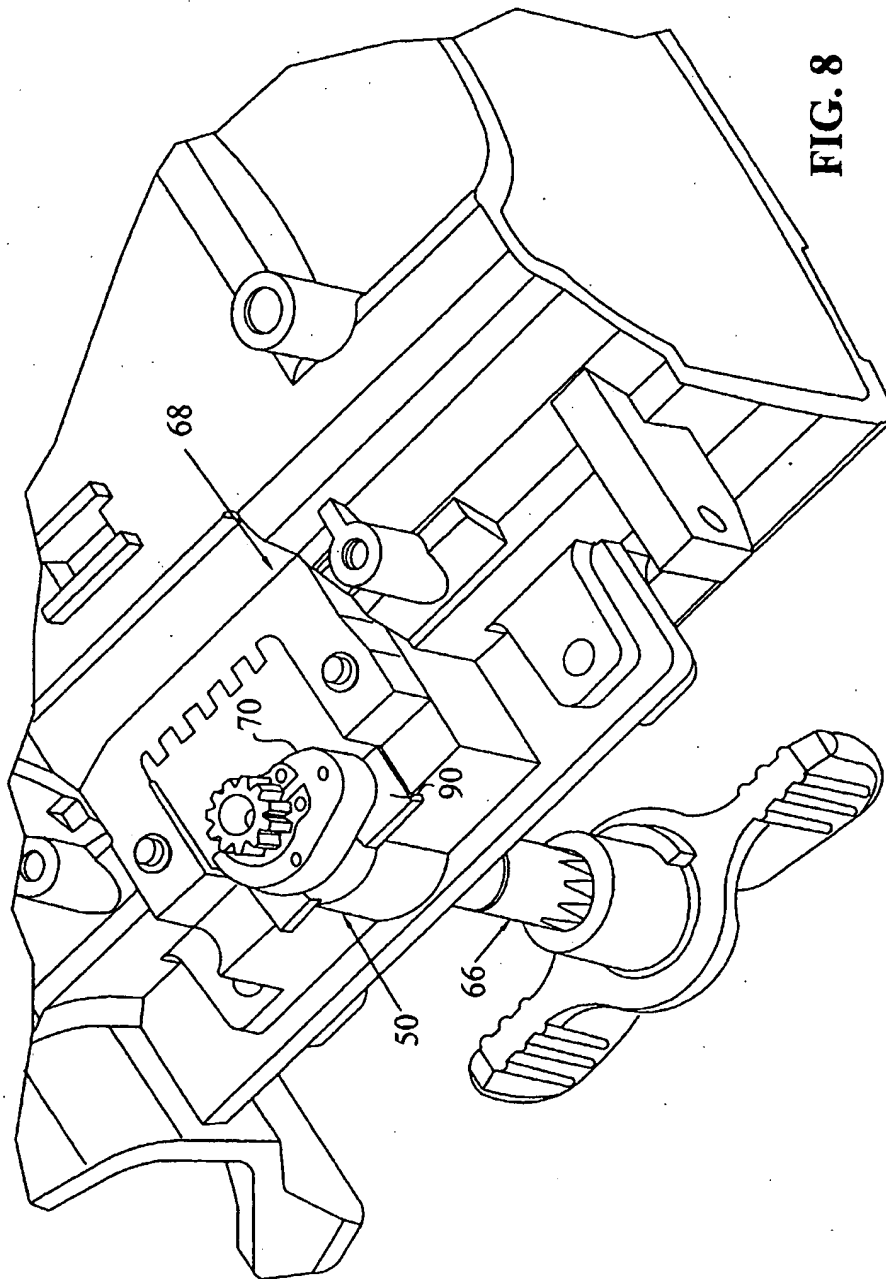


FIG. 8

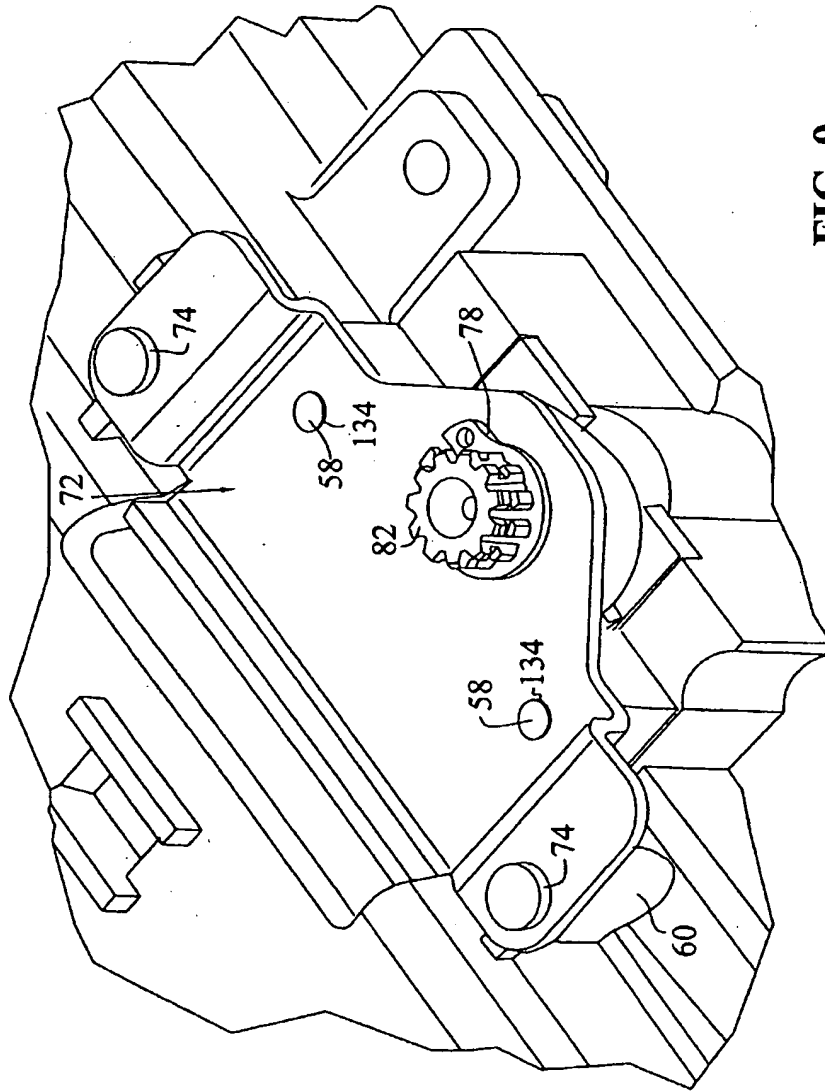


FIG. 9



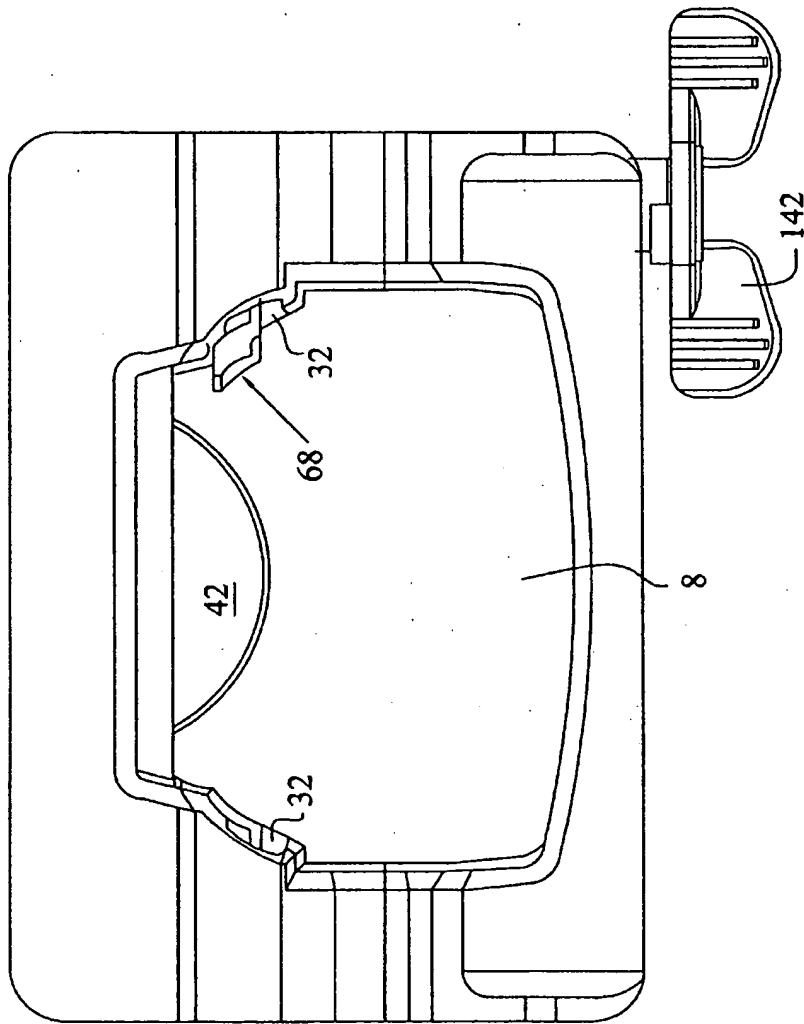


FIG. 11